The Examiner rejected claims 1, 2 and 4-12 under 35 USC 103(a) as being unpatentable over US Patent 3,894,169 to Miller. The Examiner states:

> Miller '169 discloses an acoustical damping structure comprising a plurality of coating layers, namely the primer coating, sound absorber layer, and impedance matching coating. The coating layer are made of elastomer based material, such as silicon liquids and elastomers. Dispersed in the base material are fillers which are finely divided particles and/or powders. See col. 3, lines 24-41. The particle and/or powders are present in an amount of about 10-50 percent by volume of the elastomers. The primer coating contains a silicon elastomer or polymer such as dimethyl polysiloxane or methyl phenyl polysiloxane (col. 5, lines 9-14). The sound absorbing coating is also made of silicone elastomers. Dispersed in the sound absorbing layer are metal or siliceous particles in a fine powdered condition. The particles are in the range of 20-40 microns (col. 5, lines 24-60). The third acoustic impedence layer may also be of silicone elastomers and dispersed in this layer are finely divided fillers having a particle size of 1-10 microns. Examples 1 and 2 show composite coatings which comprise liquid silicone elastomers having particles of two different particles dispersed therein. At col. 9, lines 19-31, Miller teaches the additional use of thickeners in the composition, as recited in claim 12.
>
> Miller '169 differ from the instantly claimed invention in that there is no specific disclosure of the amounts of viscous liquid (silicone elastomer) is present in the composite layers. However, the reference does teach that the filler particles and powders are uniformly distributed in the elastomer. Thus, one of ordinary skill in the art would expect that the elastomer would have to present in an amount sufficient to receive the particles and/or

powders and sufficient enough to form a coating layer. Thus, it is believed that the amount of elastomer disclosed by the reference would encompass the amount instantly claimed absent evidence to the contrary.

Applicant traverses this rejection and respectfully requests reconsideration. Miller teaches a three layer composite acoustical damping coating of elastomer base materials in which the temperature and frequency at which the maximum damping occurs in the damping layer can be adjustable by integrating proper matrix materials and properties within the elastomer. A primer coating, e.g. a silicone primer, is first applied to the surface of a structure to form a bonding base for two succeeding acoustical coatings. To inhibit the transmission of sound into and through the structure a second absorber coat of filled matrix elastomer, e.g. a silicone containing tungsten particles, is applied to the bonding base coat. Such second coat is followed by a third coat having a suitable polymer matrix, such as a polyurethane or an epoxy, which may be unfilled or filled, e.g. with siliceous particles, in such a degree as to be acoustically impedance matched to the velocity of the incoming sound waves and density of surrounding medium whereby sound reflection is obviated. The composite coating therefore behaves as an acoustical attenuator to prevent surface reflection of sound.

The present invention claims a viscous liquid vibration damping composition comprising (A) 30-95 weight percent of a viscous liquid, and (B) 5-70 weight percent of at least two solid powders having different average particle diameters, the difference between the respective average particle diameters of the solid powders being at least 10 micrometers.

The difference between the present application and the reference is straightforward and has been explained several times in the past (i.e., the parent application). Specifically, the present

application claims a viscous liquid composition comprising a viscous liquid and two solid powders having average particle diameters that differ by at least 10 micrometers. By contrast, the reference teaches a three layer composite coating - the first layer is a primer coating, the second layer is an elastomer matrix containing a filler and the third is an elastomer or a resin material containing fillers. From Applicant's perspective, it is not understood how 3 elastomeric coatings can render a single viscous liquid obvious.

The reference does teach that the second and third layers thereof can comprise a silicone elastomer. Moreover, as the Examiner notes from the examples, it states that these silicone elastomers can start out as a viscous liquid. For example, Example 1 teaches a solventless liquid silicone elastomer (93-044 of Dow Corning) containing 20 percent by volume tungsten particles. This material is subsequently cured to an elastomeric form. One skilled in the art would recognize that the statement "solventless liquid silicone elastomer" is improper as a material cannot be both an elastomer and a liquid – i.e., an elastomer by definition is a material with elasticity whereas a liquid flows. Specifically, a silicone elastomer is not a silicone liquid. Only after cure or hardening is the silicone liquid an elastomer. As stated in the specification, these elastomers may start out as dimethyl polysiloxane or methyl phenyl polysiloxane (which may be liquid) but they are subsequently cured to the elastomer.

The important point to note about the reference, however, is that none of the liquid compositions disclosed therein contain two solid powders having average particle diameters that differ by at least 10 micrometers as required in the present application.

The Examiner also states "Dispersed in the sound absorbing layer are metal or siliceous particles in a fine powdered condition. The particles are in the range of 20-40 microns (col. 5, lines

24-60). The third acoustic impedence layer may also be of silicone elastomers and dispersed in this layer are finely divided fillers having a particle size of 1-10 microns." Again, these "layers" are 2 distinct elastomer coatings made from 2 distinct liquid compositions. As such, the above statement does not render a single viscous liquid composition containing two solid powders having average particle diameters that differ by at least 10 micrometers obvious.

The Examiner also states "Examples 1 and 2 show composite coatings which comprise liquid silicone elastomers having particles of two different particles dispersed therein." First, the examples can't show liquid silicone elastomers for the reasons detailed above. Second, no single viscous liquid composition described therein comprises a viscous liquid and at least two solid powders having different average particle diameters, the difference between the respective average particle diameters of the solid powders being at least 10 micrometers.

The Examiner also states "the reference does teach that the filler particles and powders are uniformly distributed in the elastomer. Thus, one of ordinary skill in the art would expect that the elastomer would have to present in an amount sufficient to receive the particles and/or powders and sufficient enough to form a coating layer." This argument is clearly untenable on its face. First, the Examiner incorrectly assumes that the amount of liquid must be in the range claimed simply because the powders are uniformly distributed. Second, as noted above, nothing in the reference teaches the particle distribution claimed herein and, as such, one would not know the volume of viscous liquid necessary for such a composition.

Reconsideration of the rejection and allowance of the claims is respectfully requested.

The Examiner also rejected claim 3 under 35 USC 103(a) as being obvious over Miller '169 as applied to claim 1 above, and further in view of US Patent 5,661,203 to Akamatsu et al. The Examiner states:

> The above-mentioned claims further define the type of silicone oil and its kinematic viscosity. Applicants' claim that the silicone oil is selected from those having a kinematic viscosity of 100 mm2/s to 1,000,000 mm2/s, preferabley 500 mm2/s to 500,000 mm2/s at 25 C, such as trimethylsiloxy-endblocked polydimethyl siloxanes and copolymers of trimethylsiloxy-endblocked polydimethyl siloxane-polymethylphenyl siloxane.
>
> Akamatsu et al '203 discloses damping compositions that comprise silicone liquids and resinous particles. Akamatsu et al '203 like Miller '169 teaches the use of polysiloxane oils in the damping compositions. Akamatsu et al. '203 teaches that the polysiloxane oils such as trimethylsiloxy-endblocked polydimethyl siloxanes and trimethylsiloxy-endblocked polydimethyl siloxane-polymethylphenyl siloxane copolymers, especially those having a kinematic viscosity of 1 x 10-4 to 1 m2/sec prevent separation and aggregation of the particles. Siloxane oils having this viscosity are also easier to handle (col. 2, lines 37-67 and col. 2, lines 1-5).
>
> Thus, it would have been obvious to one of ordinary skill in the art to use such polysiloxane oils as instantly claimed in damping compositions since Akamatsu et al '203 teaches that the use of such polysiloxanes help to prevent aggregation of the particles and increase ease of handling.

Applicant again traverses this rejection and respectfully requests reconsideration. As noted above, the invention of the present application has been shown to be patentably distinct from the Miller

'169 reference in that the reference fails to teach a viscous liquid composition comprising a viscous liquid and two solid powders having average particle diameters that are at least 10 micrometers different.

Akamatsu et al. '203 teaches organosiloxane compositions exhibiting vibration damping properties comprising (A) from 70 to 99.9 weight percent of a liquid polyorganosiloxane, (B) from 0.1 to 10 weight percent of hollow particles of a thermoplastic organic resin, and (C) from 0 to 20 weight percent of a thickener. As with the Miller '169 reference, Akamatsu et al. '203 fails to teach two solid powders having average particle diameters that differ by at least 10 micrometers.

Applicant first contends that the references aren't properly combinable. Specifically, Miller '169 teaches an acoustical damping structure comprising three coating layers, several of which can be silicone elastomers filled with particles or powders – i.e., this structure uses 3 solid layers to absorb sound. By contrast, Akamatsu et al. '203 teaches a liquid polyorganosiloxane, hollow particles of a thermoplastic organic resin, and a thickener for damping vibration. Clearly, one skilled in either of these arts would not look to the other art for a solution. Only through hindsight has the Examiner constructed the present rejection.

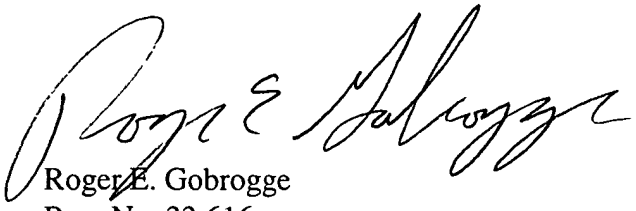
Moreover, both references fail to disclose the same feature – i.e., the inclusion of two solid powders having average particle diameters that differ by at least 10 micrometers. As such, a combination of the references likewise fails to disclose the invention.

Reconsideration of the rejection and allowance of the claims is respectfully requested.

The present response is being submitted with no extension of time. However, you are authorized to charge deposit account number 04-1520 any fees necessary to maintain the pendency of the present application.

Respectfully Submitted,

DOW CORNING CORPORATION



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